DETAILED ACTION

1. Claims 1-7, 10-11, 14-17, 19-22, 25-27, 32-33, and 41-44 have been presented.

Claim Interpretation

The Examiner interprets "computer readable media" as recited in the claim language to constitute storage medium.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. **Claims 16-17, 19-22, and 25-26** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Kitahara et al. (US. Pub 2002/0089514) in view of Shoji et al. (US. Pub 2002/0032053) in further view of Microsoft Corp. ("Microsoft Flight Simulator Information Manual and Flight Handbook") in further view of in view of National Oceanic and Atmospheric Administration ("National Weather Service"), or "NOAA" in further view of Lebovitz et al. (U.S. Patent No. 6,384,841 B1).**

As per claim 16, Kitahara discloses a computer readable medium storing computer executable instructions *which, when executed by a computer, perform a process* configured to allow a user to set attributes of individual cells in a multi-dimensional array (image are formed by array of pixels which form a 2-dimensional array, [0013]), *the process* comprising: a) determining a plurality of attributes that can be applied to the multi-dimensional array ([0013], [0016], pixels which form the print image 62 in the control screen in FIG. 16 [0141-0144]); b) determining a state of a flag corresponding to each of the plurality of attributes, wherein the flag (S301 in FIG. 12) indicates whether or not the corresponding attribute should be applied to the multi-dimensional array (if S301 is yes, a color is assigned to pixels); c)

receiving user input selecting a cell in a graphical depiction of the multi- dimensional array ([0013-0014], [0023] where color assignment selection of chosen pixels is based on the user input); d) applying to the selected cell the values of each of the plurality of attributes whose flag indicates that the corresponding attribute should be applied to the multi-dimensional array ([0027]-[0029], FIG. 16); and e) providing visual feedback that the flagged attribute(s) have been applied to the selected cell (print image 62 in the control screen in FIG. 16 [0141-0144] shows any change made on the parameters) but fails to explicitly disclose wherein the multi-dimensional arrays are *representing a common virtual geographical area, each of the cells representing a predetermined location within the virtual geographical area and possible weather conditions are determined and set for each set and reflected by the attributes of the cells.*

Shoji et al. discloses possible weather conditions in the map of virtual world (weather phenomenon on the image displayed, abstract, [0025]) wherein each cell defines a specific area of space **(Figures 9-11 and accompanying text)**. Kitahara et al. and Shoji et al. are analogous art because they both are related to changing values of attributes on the computer software in order to change the image displayed (different weather and geographical features shown on the image of the virtual world in Shoji et al. and change attributes of the image shown on the display in Kitahara et al.). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to utilize the weather conditions as taught by Shoji et al. for the image process software of Kitahara et al. because it is possible to give more reality to weather phenomenon that is reflected on an image displayed (Shoji, [0011], [0017]).

The combination of Kitahara and Shoji fails to explicitly disclose a plurality of multi-dimensional arrays which correspond to different layers above the earth, one multi-dimensional array being above another multi-dimensional array such that a user can define different weather conditions for cells in the plurality of multi-dimensional arrays. Microsoft teaching setting user defined clouds and other weather conditions at different layers above the earth **(pages 66-67, Clouds and Thunderstorms)**. It would have

been obvious to one of ordinary skill in the art at the time of the invention to utilize the user defined multi-dimensional array to represent weather conditions of Kitahara and Shoji with the user defined weather conditions for a flight simulator of Microsoft in order to increase the reality of a weather phenomenon that is reflected on an image displayed **(Shoji [0011], [0017])**. The combination of Kitahara, Shoji, and Microsoft disclose such that the user can define different weather conditions **(Microsoft pages 66-67, Clouds and Thunderstorms**) for each individual cell **(Shoji, [0025])** in the plurality of multi-dimensional arrays **(Microsoft pages 66-67, Clouds and Thunderstorms)**.

The combination of Kitahara, Shoji, and Microsoft fails to explicitly disclose wherein the first, second and third attributes are used together to define the aspect of the weather condition for each individual cell in the plurality of multi-dimensional arrays. NOAA teaches using three attributes together (red, blue, green color channel intensity) to define an aspect of a weather condition for each individual cell in a multi-dimensional array **(Radar reflectivity, DBZ chart**. It would have been obvious to an ordinary person skilled in the art at the time of the invention to combine the medium with instructions for configuring multi-dimensional arrays of Kitahara, Shoji, and Microsoft with the base-channel and color intensity determination of NOAA in order to easily convey the intensity of a represented weather condition.

The combination of Kitahara, Shoji, Microsoft and NOAA fails to explicitly disclose wherein receiving user input selecting a cell in a graphical depiction, representing a particular location within the virtual geographical area. Lebovitz teaches selecting an individual cell representing a particular location within a virtual geographical area to modify attributes of that cell **(column 5, lines 7-50)**. It would have been obvious to an ordinary person skilled in the art at the time of the invention to combine the user selection of a cell of Lebovitz with the cell based depiction of weather conditions of the combination of Kitahara, Shoji, Microsoft, and NOAA in order to give the user more control in selection of an object for user input **(Lebovitz, column 5, lines 40-50)**.

As per claim 17, the combination of Kitahara, Shoji, Microsoft, NOAA, and Lebovitz already discloses the computer readable medium of claim 16, wherein step e) comprises shading the selected cell (Kitahara, [0027]-[0029], FIG. 16).

As per claim 19, the combination of Kitahara, Shoji, Microsoft, NOAA, and Lebovitz already discloses the computer readable medium of claim 16, wherein the computer executable instructions further comprise exporting the multi-dimensional arrays (Shoji, image are formed by array of pixels which form a 2-dimensional array, [0013], [0102-0103]) in a data format usable by a computer game to simulate the weather conditions (Shoji, [0061], weather model and object in [0096-0097], entertainment apparatus 1 in FIG. 4).

As per claim 20, the combination of Kitahara, Shoji, Microsoft, NOAA, and Lebovitz already discloses the computer readable medium of claim 17, wherein step e) comprises shading the selected cell a color based on the values of three of the plurality of attributes (Kitahara, [0027]-[0029], FIG. 16 where shows the level of color of red (R), green (G), and blue (B) can be adjusted).

As per claim 21, the combination of Kitahara, Shoji, Microsoft, NOAA, and Lebovitz already discloses the computer readable medium of claim 20, wherein step e) comprises: i) determining a first color channel intensity (Kitahara, "intensity values of primary colors", [0028] where the first primary color is red) based on the determined value of the first attribute (Kitahara, color value [0013] for color of red, [0015],[0028]); ii) determining a second color channel intensity (Kitahara, "intensity values of primary colors", [0028] where the first primary color is green) based on the determined value of the second attribute (Kitahara, color value [0013] for color of green, [0015],[0028]); iii) determining a third color channel intensity (Kitahara, "intensity values of primary colors", [0028] where the first primary color is blue) based on the determined value of the third attribute (Kitahara, color value [0013] for color of blue, [0015],[0028]); and iv) combining the color channel intensities to determine the shading color (Kitahara, [0027]).

As per claim 22, the combination of Kitahara, Shoji, Microsoft, NOAA, and Lebovitz already discloses the computer readable medium of claim 21, wherein the first color channel is a red color channel, the second color channel is a green color channel, and the third color channel is a blue color channel (Kitahara, [0016] where three colors are red, blue and green).

As per claim 24, the combination of Kitahara, Shoji, Microsoft, NOAA, and Lebovitz already discloses the computer readable medium of claim 20, wherein the computer executable instructions further comprise receiving user input identifying one or more of the three attributes of the plurality of attributes (Kitahara, different attributes which a user can modify in FIG. 16).

As per claim 25, the combination of Kitahara, Shoji, Microsoft, NOAA, and Lebovitz already discloses the computer readable medium of claim 22, wherein the computer executable instructions further comprise receiving user input identifying which of the three attributes corresponds to each of the red, green, and blue color channels (Kitahara, FIG. 16, [0016] where three colors are red, blue and green).

As per claim 26, the combination of Kitahara, Shoji, Microsoft, NOAA, and Lebovitz already discloses the computer readable medium of claim 16, wherein step e) comprises shading the selected cell darker as more attributes' flags indicate that the attributes should be applied to the multi-dimensional arrays (Kitahara, image are formed by array of pixels which form a 2-dimensional array, [0013], FIG. 17 where the darker image is presented while change the attribute, [0149-0152]).

Allowable Subject Matter

3. Claims 1-7, 10-11, 14-15, 27, 32-33, 41-44 are directed to allowable subject matter. However the reasons for allowance are held in abeyance until the outstanding issues of all claims have been overcome.

Response to Arguments

4. Applicant's arguments filed 05/04/09 have been fully considered but they are not persuasive.

5. Applicant's arguments with respect to claims 16-17, 19-22, and 25-26 have been considered but are moot in view of the new grounds of rejection.

Conclusion

Applicant's amendment necessitated the new grounds of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

6. All claims are rejected.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Suzanne Lo whose telephone number is (571)272-5876. The examiner can normally be reached on M-F, 8-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kamini Shah can be reached on (571)272-2297. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/SL/
07/31/09

/Hugh Jones/

Primary Examiner, Art Unit 2128